DOORDASH

# DashMart:

## A DashMart Analysis Assignment

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# Agenda

- Scope of Analysis
- Tip Percentage by Total orders
- Clustering Customer Segments
- Order Size by Gratuity
- Restaurants Refunds
- Insights

# Scope:
# DashMart Analysis

# Scope

## DataSet

- Various ways to approach DoorDash data to evaluate and provide insights :
  - Time-series
  - Customer
  - Restaurant
  - Driver
  - Geography
  - Refund
  - Market

## Focus

- Satisfaction of drivers, customers and restaurants - how order size can affect workload, gratuity and satisfaction:
  - Driver Satisfaction: ESAT
  - Customer Segments: CSAT
  - Order size to gratuity: workload
  - Refunds: CSAT
  - Day of the Week Ratio: workload

## Expectations

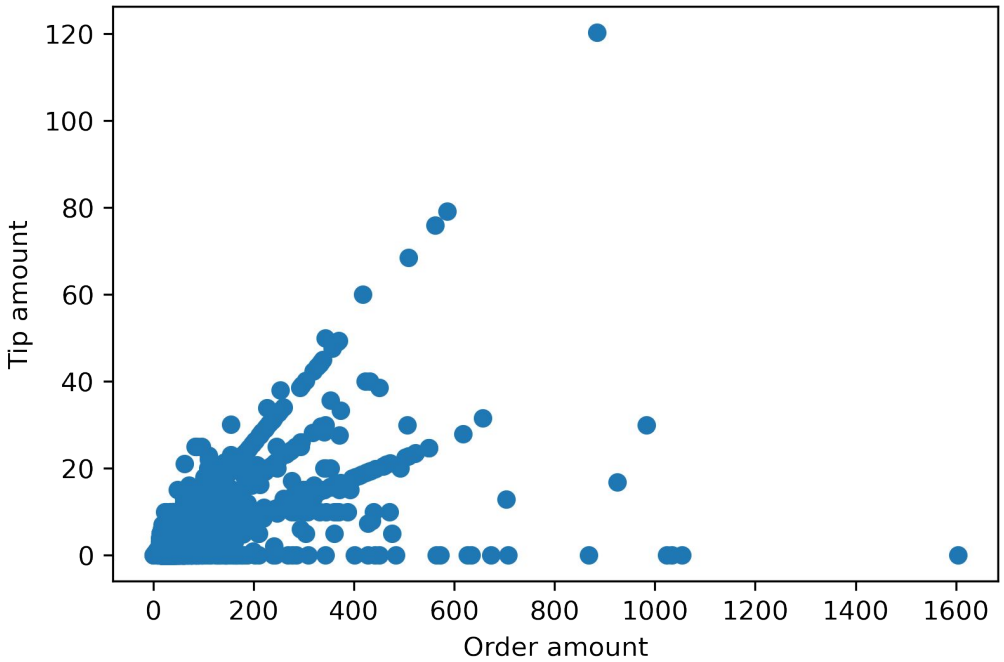
- Results could provide insight into how drivers focus on specific orders and the potential size of gratuity
- What kind of customers are being serviced, as well as, how generous they are
- Do refunds and gratuity relate to one another
- Can we predict consistent demand?

# Orders that receive big tips

# Tipping by Order Size

- The correlation coefficient we calculated for our two variables is 0.65. This suggests that there is a moderately strong positive correlation between the two variables.
- We can likely suggest our drivers are more likely to pick up order sizes with the range of 0 to 200 for a more consistent gratuity take home

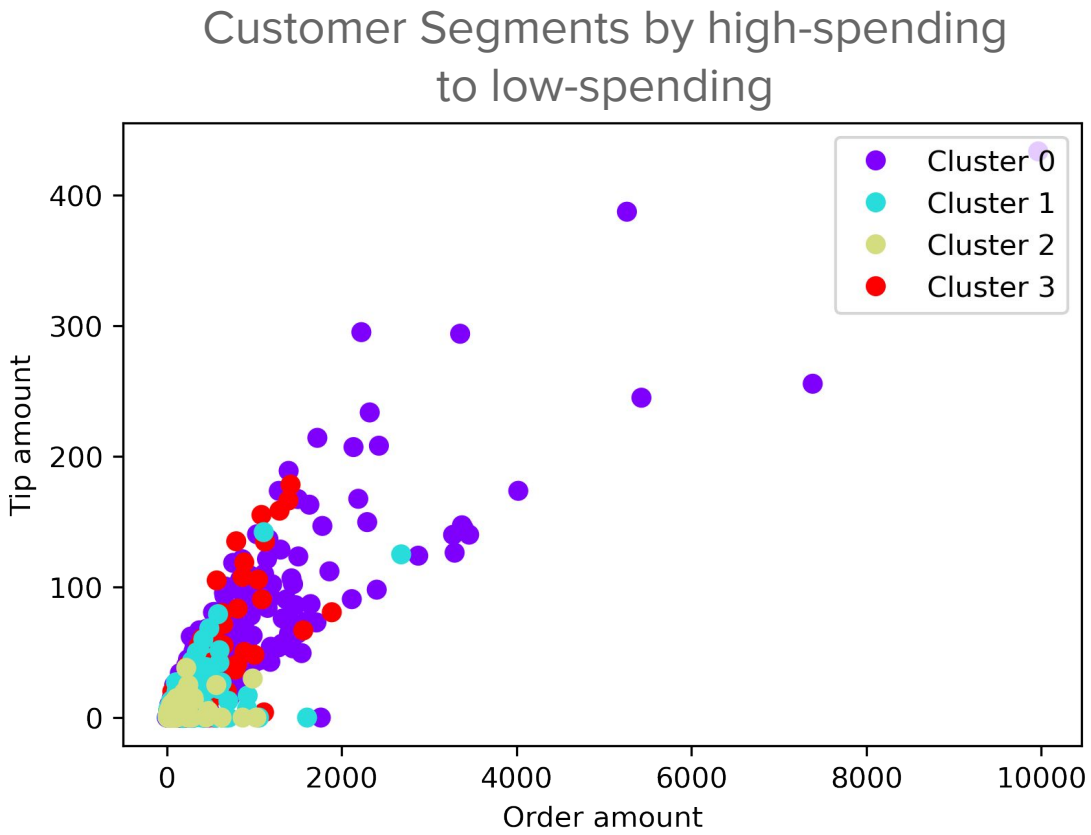
## Correlating customer gratuity by the size of order



# Who are the customers that generously leave tips?

# Customer Segments

- **Cluster 0** represents high-spending, high-frequency customers who tip generously.
- **Cluster 1** represents low-spending, low-frequency customers who rarely tip.
- **Cluster 2** represents moderate-spending, moderate-frequency customers who tip moderately.
- **Cluster 3** represents high-spending, low-frequency customers who tip generously



# Customer Segments

- This data provides insight into our customers, and how they approach spending
- Each cluster has a ratio of when the cluster would likely order, defining a day or week or month they can be counted on to order.
- This information provides valuable insight into service days, and when to expect workload

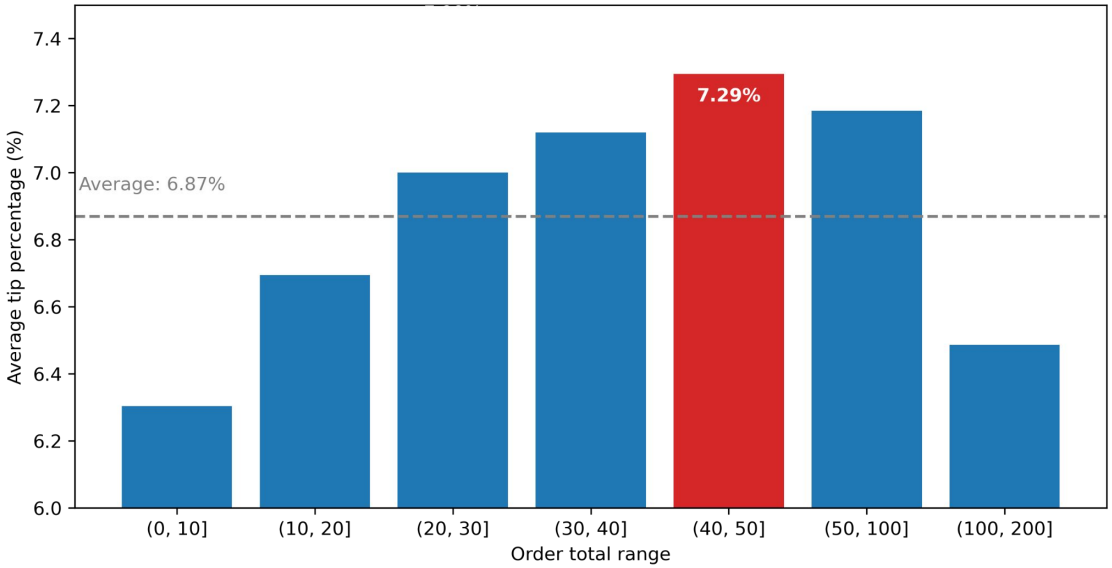
| | Number of Customers | Average Order($) | Average Tip($) |
|---|---|---|---|
| **Cluster 0** | 880 | $ 141.62 | $ 10.90 |
| **Cluster 1** | 1614 | $ 85.84 | $ 5.57 |
| **Cluster 2** | 468 | $ 63.51 | $ 3.63 |
| **Cluster 3** | 3739 | $ 169.50 | $ 11.45 |

# What orders receive the best gratuity?

# Order size to gratuity

- The number of orders between 20 to 100 have a total approximate count of 15,000
- The bulk of gratuity occurs between orders between 30 to 100
- Drivers have higher probability of taking these types of orders,
- Consistent orders made with similar tops can  suggest consistent workload

## Highest gratuity received on orders between 40 to 50

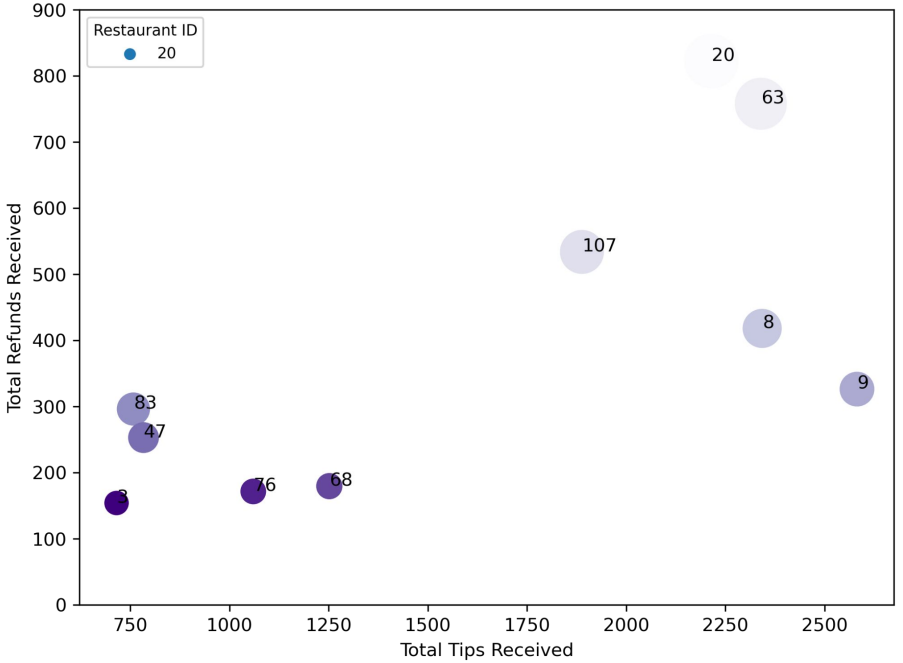


# Restaurants that receive high gratuity also receive high refunds

# Order size to gratuity

- Top 10 restaurants that refund more money to customers may also receive slightly higher tips.
- Low correlation suggests the relationship may be insignificant but helps us identify consistent orders.
- The number of orders, items, and day of the week, can provide a prediction of behavior.,

## Top 10 Restaurants that receive the most gratuity and refunds



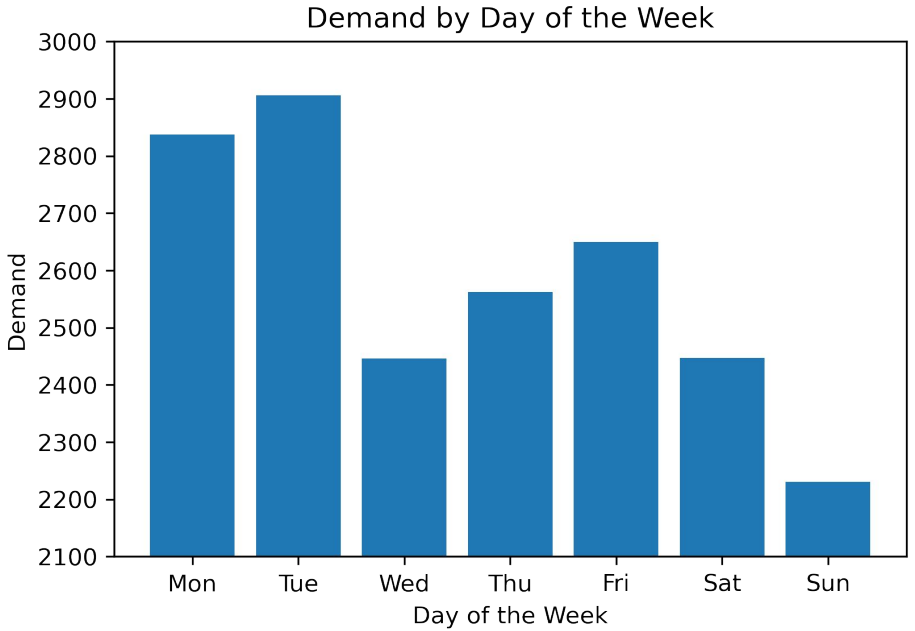
# Insights

- When drivers accept orders between $40 and $50, they typically receive better rewards and prioritize them over more expensive ones. Predicting the demand for DashMarts can help identify seasonal peaks in workload, enabling the identification of when to hire or reduce hours.

- Workforce management can be determined based on the demand for orders between $30 to $100. For larger orders beyond $100, a 'spotter' should be present. Identifying the daily, weekly, and monthly workload can help optimize hourly workers, resulting in worker optimization and cost savings.

- By enhancing the order management of restaurants that regularly receive high refunds and generous gratuities, DashMart can forecast peak order days. DoorDash could assist these restaurants in optimizing their subscription pricing strategy and potentially raising their prices to foster stronger vendor relationships.

- Day of the week ratio suggests that 2100 orders per day is standard
- Include the time it takes to fulfill an order, you can produce the number of staff for a given day at a DashMart location
- This can then correlate to a service level agreement per DashMart location
- Establishing a Workforce Management practise operationalizes staff versus demand



# Thank You

# Appendix:

- Attached “DoorDash_Assignment_workupMVP042623.py” file
  - All imported libraries
  - Analysis workup
  - Models